Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Mecklenburg, Lunenburg

STREAM NAME: Middle Meherrin River

HYDROLOGIC UNIT: 03010204

TMDL ID: VAC-K01R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.14 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Crupper Run

RIVER MILE: 7.14

LATITUDE: 36.90240 **LONGITUDE:** -78.37960

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.85030 **LONGITUDE:** -78.33830

Middle Meherrin River from Crupper Run to the Mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

This segment of the Middle Meherrin River is not supporting the recreation use due to excessive counts of fecal coliform bacteria. Counts exceeded the instantaneous standard in 4/19 samples taken at 5AMMR000.69.

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Lunenburg

STREAM NAME: North Meherrin River

HYDROLOGIC UNIT: 03010204

TMDL ID: VAC-K02R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.58 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Couches Creek

RIVER MILE: 15.67

LATITUDE: 36.95970 **LONGITUDE:** -78.32080

DOWNSTREAM LIMIT:

DESCRIPTION: Reedy Creek

RIVER MILE: 8.09

LATITUDE: 36.88190 **LONGITUDE:** -78.30340

North Meherrin River from Couches Creek downstream to Reedy Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Segment assessed not supporting of the recreation use support goal based on a fecal coliform standard violation rate of 6/28 recorded at the Route 49 bridge (5ANMR013.95).

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform violations in this segment is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Lunenburg

STREAM NAME: Flat Rock Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAC-K03R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.72 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Confluence downstream of Rte 647 bridge

RIVER MILE: 9.72

LATITUDE: 36.89700 **LONGITUDE:** -78.12990

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.79970 **LONGITUDE:** -78.10960

Flat Rock Creek from the first confluence downstream of the Route 647 bridge to its mouth at the Meherrin River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Segment assessed not supporting of the Recreation use support goal based on a fecal coliform violation rate of 7/27 recorded at the Route 612 bridge (5AFRC002.98).

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform violations is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Lunenburg, Nottoway

STREAM NAME: Nottoway Falls Lake

HYDROLOGIC UNIT: 03010201

TMDL ID: VAC-K14L-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 32.07 - Acres

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Extent of backwater

RIVER MILE: 143.69

LATITUDE: 37.05200 **LONGITUDE:** -78.16240

DOWNSTREAM LIMIT:

DESCRIPTION: Dam

RIVER MILE: 143.06

LATITUDE: 37.04630 **LONGITUDE:** -78.15000

Nottoway Falls Lake

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Trophic State Index

Nottoway Falls Lake was assessed not supporting of the Aquatic Life Use based on low dissolved oxygen below the thermocline at 5ANTW143.06. Nottoway Falls Lake is stratified May - Septemeber. Trophic State Indices were calculated for the following parameters: Chlorophyll a - 59.037, Total Phosphorous - 58.244 and Secchi Depth - 63.833.

Nottoway Fall lake is considered to be eutrophic and impaired based on these calculations.

IMPAIRMENT SOURCE: Unknown, Unknown

The low DO is caused by stratification of the lake.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Lunenburg, Nottoway, Prince Edward

STREAM NAME: Nottoway River

HYDROLOGIC UNIT: 03010201

TMDL ID: VAC-K14R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 17.76 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 161.0

LATITUDE: 37.11140 **LONGITUDE:** -78.26610

DOWNSTREAM LIMIT:

DESCRIPTION: Nottoway Falls Lake

RIVER MILE: 145.74

LATITUDE: 37.06080 **LONGITUDE:** -78.16960

Nottoway River from its headwaters to the headwaters of Nottoway Falls Lake.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was evaluated during the 1998 cycle as fully supporting but threatened of the Swimmable use support goal based on fecal coliform violations at the Route 625 bridge (5ANTW155.06). There has been no additional monitoring since 1997. There are no data points in the 2004 assessment cycle.

However, in 1999 EPA included this station on Attachment B of the Consent Decree ("Waters to be identified to Virginia for Listing Consideration during Development of the Next List.") Since no additional monitoring has been performed, DEQ is required to downgrade the segment to Not Supporting of the Swimmable Use goal.

The segment has been shortened so that it now ends at the extent of backwater of Nottoway Falls Lake, instead of at The Falls.

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform violations in this segment is considered unknown.

Continued monitoring is necessary to increase the data set and make a confident assessment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Lunenburg

STREAM NAME: Big Hounds Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAC-K14R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 10.35 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 10.35

LATITUDE: 36.99350 **LONGITUDE:** -78.21070

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 37.02140 **LONGITUDE:** -78.09510

Big Hounds Creek from its headwaters to its mouth at the Nottoway River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Segment was assessed not supporting of the recreation use support goal based on a fecal coliform violation rate of 5/28 recorded at the Route 653 bridge (5ABHC003.73).

IMPAIRMENT SOURCE: Unknown

The source of fecal coliform is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Nottoway

STREAM NAME: Little Nottoway River

HYDROLOGIC UNIT: 03010201

TMDL ID: VAC-K15R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.85 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Lazaretto Creek

RIVER MILE: 9.85

LATITUDE: 37.11980 **LONGITUDE:** -78.08440

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 37.02220 **LONGITUDE:** -78.00500

Little Nottoway River from Lazaretto Creek downstream to its mouth at the Nottoway River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Segment assessed not supporting of the recreation use support goal based on a fecal coliform violation rate of 12/28 recorded at the Route 626 bridge (5ALNT004.68).

IMPAIRMENT SOURCE: Unknown

The source of the impairment is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick, Nottoway

STREAM NAME: Fort Pickett Reservoir

HYDROLOGIC UNIT: 03010201

TMDL ID: VAC-K16L-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 198.43 - Acres

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Extent of backwaters

RIVER MILE: 128.67

LATITUDE: 37.02310 **LONGITUDE:** -77.99890

DOWNSTREAM LIMIT:

DESCRIPTION: Dam

RIVER MILE: 127.14

LATITUDE: 36.98950 **LONGITUDE:** -77.96340

Fort Pickett Reservoir

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Trophic State Index

Fort Pickett Reservoir was assessed not supporting of the Aquatic Life Use based on low dissolved oxygen below the thermocline at 5ANTW143.06. Fort Pickett Reservoir is stratified May - August. Trophic State Indices were calculated at the following stations:
5ACDR000.30 (Cedar Creek Arm)- Chlorophyll a - 60.12, Total Phosphorous - 59.59 and Secchi Depth - 65.15.
5ANTW127.14 (At the dam)- Chlorophyll a - 59.369, Total Phosphorous - 60.59 and Secchi Depth - 68.19.
5ANTW128.67 (Nottoway River Backwaters)- Chlorophyll a - 56.85, Total Phosphorous - 65.44 and Secchi Depth - 65.15.
Fort Pickett Reservoir is considered eutrophic and impaired based on these calculations.

IMPAIRMENT SOURCE: Unknown

The source of the DO violations is considered to be one or more pollutants from anthropogenic sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Nottoway

STREAM NAME: Hurricane Branch, UT - Unnamed Tributary

HYDROLOGIC UNIT: 03010201

TMDL ID: VAC-K16R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.12 - Miles

INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Town of Blackstone STP discharge

RIVER MILE: 1.12

LATITUDE: 37.04080 **LONGITUDE:** -77.95450

DOWNSTREAM LIMIT:

DESCRIPTION: Hurricane Branch confluence

RIVER MILE: 0.00

LATITUDE: 37.02760 **LONGITUDE:** -77.96040

Segment begins at the Blackstone Municipal Sewage Treatment Plant discharge, and extends downstream

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

This segment was initially listed on the 1994 303(d) list based on benthic monitoring results. Benthic monitoring in the Fall and Spring of 2002 performed at the DEQ biological monitoring station 0.4 mile downstream of the STP discharge indicated that the benthic community was moderately impaired. As a result, the stream segment was assessed not supporting of the Clean Water Act's Aquatic Life Use support goal for the 2004 305(b) report.

IMPAIRMENT SOURCE: Unknown

The impairment of this stream segment is attributed to erosion and sedimentation problems and the Town of Blackstone Municipal STP discharge.

A consent order for upgrade of the facility was approved by the SWCB March 21, 1996. The facility is currently under a schedule of compliance which will end 6/30/2002 for upgrade to meet ammonia limits. The plant upgrade was completed in late 2000 and the plant has been in substantial compliance with the permit's ammonia nitrogen limits since then.

The facility is currently on EPA's 304(l) list for copper, lead and zinc. A metals translator study showed that the metals concentrations in the effluent were below water quality standards. However, the 1998 permit reissuance resulted in the limits for copper, lead and zinc being replaced with a minimum hardness limit; above this level, copper, lead and zinc do not show toxicity at the levels historically reported from this discharge. Although the facility is on the 304(l) list, no further action is required for these metals.

Town is currently subject to all of the final limits contained in the 1998 permit reissuance.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick, Dinwiddie

STREAM NAME: Beaverpond Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAC-K16R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.17 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2006

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 7.17

LATITUDE: 37.06050 **LONGITUDE:** -77.83340

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.98370 **LONGITUDE:** -77.79900

Beaverpond Creek from its headwaters to its mouth at the Nottoway River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, E. coli (2004)

The segment was evaluated not supporting of the recreation use support goal based on a fecal coliform violation rate of 9/19 and a E. coli violation rate of 4/7 at the Route 612 bridge (5ABPC000.12).

Both the Fecal Coliform standard (400cfu/100mL or 200cfu/100mL for two or more samples over a calendar month) and the E. coli standard (235cfu/100mL or 126cfu/100mL for two or more samples over a calendar month) apply during the transition betweeen the Fecal Coliform standard and the recently approved E coli standard. Once a dataset of 12 or more samples are collected for E coli or after June 30, 2008 whichever comes first, only the new standard will apply.

IMPAIRMENT SOURCE: Unknown, Unknown

The source is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Nottoway

STREAM NAME: Hurricane Branch

HYDROLOGIC UNIT: 03010201

TMDL ID: VAC-K16R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.94 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Gettysburg Road crossing

RIVER MILE: 1.91

LATITUDE: 37.00440 **LONGITUDE:** -77.93970

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Nottoway River

RIVER MILE: 0.00

LATITUDE: 36.98620 **LONGITUDE:** -77.91810

Hurricane Branch from the Gettysburg Road crossing to its confluence with Nottoway River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

This segment of Hurricane Branch is not supporting of the Aquatic Life use goal due to a dissolved oxygen violation rate of 2/6 recorded at the Gettysburg Road crossing (5AHUR001.91).

IMPAIRMENT SOURCE: Unknown

The source of the DO violation is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Henrico, Goochland, Powhatan

STREAM NAME: James River

HYDROLOGIC UNIT: 02080205

TMDL ID: VAP-H39R-12

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.34 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: River mile 128.14

RIVER MILE: 128.14

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Tuckahoe Creek

RIVER MILE:

LATITUDE: **LONGITUDE:**

The James River from river mile 128.14 downstream to the confluence with Tuckahoe Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, pH

The James River is assessed not supporting of the Recreation and Aquatic Life Use support goals because of violation rates of 2/10 for fecal coliform and pH, respectively at station 2-JMS127.50.

IMPAIRMENT SOURCE: Unknown, Unknown

The source(s) of the fecal coliform and pH violations is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Powhatan

STREAM NAME: Rocky Ford Creek

HYDROLOGIC UNIT: 02080207

TMDL ID: VAP-J07R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.53 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 5.53

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Confluence with Fighting Creek

RIVER MILE: 0.00

LATITUDE: **LONGITUDE:**

Rocky Ford Creek from it headwaters downstream to the confluence with Fighting Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Rocky Ford Creek was assessed not supporting of the Recreation use goal based on a fecal coliform violation rate of 7/29 at the Rt. 603 bridge (2-RFD002.58).

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform violations is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Lunenburg, Mecklenburg

STREAM NAME: Stony Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K04R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 13.78 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 13.78

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: **LONGITUDE:**

Stony Creek from its headwaters to it mouth

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed not supporting of the Recreation use support goal based on a fecal coliform violation rate of 3/19 at the Rt. 602 bridge (5ASNY000.65).

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform violations is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick

STREAM NAME: Meherrin River

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K05R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 26.08 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Taylors Creek

RIVER MILE: 89.06

LATITUDE: 36.75320 **LONGITUDE:** -77.99600

DOWNSTREAM LIMIT:

DESCRIPTION: Reedy Creek

RIVER MILE: 62.14

LATITUDE: 36.71340 **LONGITUDE:** -77.68050

Meherrin River from Taylors Creek downstream to Reedy Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The Meherrin River from Taylors Creek to Reedy Creek was assessed not supporting of the Recreation use support goal based on fecal coliform violation rates of 5/30 at 5AMHN068.30, 2/13 at 5AMHN073.98, and 17/46 at 5AMHN082.13.

The segment was originally considered fully supporting but threatened during the year 1998 cycle, but was downgraded during the 2002 cycle.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick

STREAM NAME: Briery Branch

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K05R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 4.0

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.0

LATITUDE: **LONGITUDE:**

The mainstem of Briery Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed as not supporting of the Recreation use support goal based on a fecal coliform violation rate of 4/12 at 5A-PL-GR-B, a Confined Animal Feeding Operation special study station.

IMPAIRMENT SOURCE: Unknown, Confined Animal Feeding Operation

Source is unknown, but a CAFO is suspected to be a contributing cause..

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Lunenburg

STREAM NAME: Great Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K06R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.78 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 19.70

LATITUDE: 36.91550 **LONGITUDE:** -78.03630

DOWNSTREAM LIMIT:

DESCRIPTION: Dixon Millpond

RIVER MILE: 11.70

LATITUDE: 36.88660 **LONGITUDE:** -78.02340

Great Creek upstream of Dixon Millpond, including the pond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: pH, Dissolved Oxygen, Fecal Coliform

The segment was assessed in 2002 as not supporting of the Aquatic Life Use based on pH violations at 5AGTC025.70 (previously called PL-18A), and at 5AXEA000.04 (previously called PL-18B). In 2004, the segment continues to be impaired due to pH violations of 11/17 and 4/17, respectively. The pH TMDL is due in 2014.

In addition, the segment had a DO violation rate of 2/17 at 5AGTC0025.70 and a fecal coliform violation rate of 3/19 at 5AXEA000.04. The DO and fecal coliform TMDLs will not be due until 2016.

These stations are confined animal feeding operation (CAFO) special study stations.

IMPAIRMENT SOURCE: Unknown, Unknown

Source is unknown.

There is currently not enough data to identify the CAFO as a contributor to the impairment in this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick

STREAM NAME: Great Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K06R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.06 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Route 1 bridge

RIVER MILE: 14.37

LATITUDE: 36.83130 **LONGITUDE:** -77.92680

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream tributary

RIVER MILE: 11.06

LATITUDE: 36.75790 **LONGITUDE:** -77.87260

Great Creek from the Route 1 bridge downstream to the tributary below Price Mill.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Assessed not supporting of the Recreation Use goal based on a fecal coliform violation rate of 4/12 at PL-GR-A.

PL-GR-A is a confined animal feeding operation (CAFO) special study station located at the Route 1 bridge crossing.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

There is currently not enough data to identify the CAFO as a contributor to the impairment in this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick

STREAM NAME: Great Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K06R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.6 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Great Creek Reservoir dam

RIVER MILE: 7.6

LATITUDE: 36.75790 **LONGITUDE:** -77.87260

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.71560 **LONGITUDE:** -77.79360

Great Creek from the Great Creek Reservoir dam downstream to its mouth at the Meherrin River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Assessed not supporting of the Recreation Use goal based on a fecal coliform violation rate of 11/28 at 5AGTC005.40.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

There is currently not enough data to identify the CAFO as a contributor to the impairment in this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY:

STREAM NAME: Roses Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K07R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.85 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2004

UPSTREAM LIMIT:

DESCRIPTION: Town of Alberta STP discharge

RIVER MILE: 9.83

LATITUDE: 36.84060 **LONGITUDE:** -77.09110

DOWNSTREAM LIMIT:

DESCRIPTION: Great Creek confluence

RIVER MILE: 0.00

LATITUDE: 36.74360 **LONGITUDE:** -77.83600

From the Alberta Sewage Treatment Plant discharge to the mouth at Great Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Roses Creek from the Alberta STP discharge downstream to its mouth at Great Creek was evaluated not supporting of the Recreation use support goal based on a fecal coliform standard violation rate of 13/26 at the Route 678 bridge (5ARSE001.22).

IMPAIRMENT SOURCE: Unknown, PS - Municipal

The impairment in this segment is potentially the result of operational problems at the Alberta STP. However, because fecal coliform monitoring performed on the Meherrin River resulted in impaired designations in adjacent watersheds, additional monitoring and source identification is necessary to identify the true source of the violations.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Emporia, Greensville, Southampton

STREAM NAME: Meherrin River

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K09R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.72 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Emporia Reservoir Dam

RIVER MILE: 53.44

LATITUDE: 36.69580 **LONGITUDE:** -77.55720

DOWNSTREAM LIMIT:

DESCRIPTION: Caney Branch

RIVER MILE: 47.70

LATITUDE: 36.67130 **LONGITUDE:** -77.49250

The Meherrin River from the Emporia Reservoir Dam to a point about 5 miles downstream.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fish Tissue - Mercury, Arsenic & Benzo(k) fluoranthene

The Meherrin River is subject to dissolved oxygen violations during summer months below the Emporia Reservoir dam as measured at the Route 302 bridge (5AMHN052.34) and verified during a special study conducted in July 1994. The segment was initially listed during the 1998 cycle as fully supporting but threatened of the Aquatic Life use support goal and was downgraded to impaired during the 2004 cycle due to a dissolved oxygen violation rate of 7/49. The DO TMDL is due 2016.

Beginning in the year 2002 cycle, the segment was assessed partially supporting of the fish consumption use based on 1996 fish tissue screening value exceedances for benzo(k)fluoranthene in two species. Arsenic was listed as an observed effect. During the year 2004 cycle, PCBs in fish tissue was added as an impairing cause and Mercury in fish tissue was added as an observed effect. The benzo(k)fluoranthene TMDL is due in 2014 and the PCB TMDL is due in 2016.

IMPAIRMENT SOURCE: Hypolimnetic Release, Unknown

Hypolimnetic waters releases through the Emporia Reservoir Dam.

The source(s) of the fish tissue contaminants are considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick, Greensville

STREAM NAME: Rattlesnake Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K10R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.92 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Edwards Creek

RIVER MILE: 8.92

LATITUDE: 36.61010 **LONGITUDE:** -77.84270

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.57470 **LONGITUDE:** -77.73350

From Edwards Creek downstream to its mouth at Fontaine Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: pH, Fecal Coliform

The segment was assessed not supporting of both the Recreation and Aquatic Life Uses based on sampling at the Route 672 bridge (5ARSK003.08) (pH 4/20; fecal coliform 3/20).

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Greensville

STREAM NAME: Fontaine Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K10R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.04 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Rattlesnake Creek

RIVER MILE:

LATITUDE: 36.57470 **LONGITUDE:** -77.73350

DOWNSTREAM LIMIT:

DESCRIPTION: Rocky Run confluence

RIVER MILE:

LATITUDE: **LONGITUDE:**

Fontaine Creek from the confluence of Rattlesnake Creek to the confluence of Rocky Run.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed not supporting of the Recreation use support goal based on a fecal coliform violation rate of 2/9 at the Route 603 bridge (5AFON037.89).

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Greensville

STREAM NAME: Fontaine Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K11R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.89 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Rte 633 bridge

RIVER MILE: 31.33

LATITUDE: 36.63310 **LONGITUDE:** -77.64540

DOWNSTREAM LIMIT:

DESCRIPTION: Downstream tributary.

RIVER MILE: 24.06

LATITUDE: 36.64090 **LONGITUDE:** -77.58770

From the Route 633 bridge to the tributary between Routes 627 and 639.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, Dissolved Oxygen

The segment is assessed not supporting of the Recreation and Aquatic Life use goals based on the following violation rates:

Fecal coliform 4/24 at the Rt. 639 bridge (5AFON025.64)
Fecal coliform 3/18 at the Rt. 627 bridge (5AFON027.33)
Dissolved oxygen 3/16 at 5AFON027.33

This station is a confined animal feeding operation (CAFO) special study station.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

There is currently not enough data to identify the CAFO as a contributor to the impairment in this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Greensville

STREAM NAME: Fontaine Creek and all its tributaries in VAP-K12R.

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K11R-02

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 46.33 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Beaverpond Creek

RIVER MILE: 15.61

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Meherrin River

RIVER MILE: 0.00

LATITUDE: 36.55400 **LONGITUDE:** -77.37500

From Beaverpond Creek in VAP-K11R to mouth at Meherrin River in watershed VAP-K12R.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

In 1998, Fontaine Creek from Beaverdam Creek to its mouth at the Meherrin River was assessed not supporting of the Aquatic Life use support goal because of dissolved oxygen violations. All tributaries entering this segment were considered fully supporting but threatened. The DO TMDL for the mainstem is due in 2010.

During the year 2002 cycle, pH was added as an impairing cause and the tributaries were added to the segment. The TMDL is due in 2014.

In the year 2004 cycle, the segments are still considered impaired based on dissolved oxygen and pH violation rates of 5/20 at 5AFON006.07 (K12R), a dissolved oxygen violation rate of 8/10 at 5ACNY001.08, and the results of the 1994 special study.

1994 special study violations:
DO 2/4 at 5AFON014.38;
DO 2/3 at 5AFON001.46;
DO 2/2, pH 2/2 at 5ACNY001.08;
DO 2/3 at 5AMLS000.77;
DO 2/2, pH 2/2 at 5AMLS005.42;
DO 2/2 at 5AMLS007.96.

IMPAIRMENT SOURCE: Natural Conditions

Violations suspected to be caused by swampwater conditions throughout watershed.

Bottom water DO violations in two samples taken during 1994 special study at 5AFON014.38.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Greensville

STREAM NAME: Cattail Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K11R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.42 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 8.38

LATITUDE: 36.59060 **LONGITUDE:** -77.66750

DOWNSTREAM LIMIT:

DESCRIPTION: Collier Branch

RIVER MILE: 2.03

LATITUDE: 36.57360 **LONGITUDE:** -77.58720

Cattail Creek upstream of Collier Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

The segment was assessed as not supporting the Aquatic Life Use because of violations at two locations. The TMDLs are due in 2014.
pH 4/16 at the Rt. 633 bridge (5ACTT005.89/PL-15A);
DO 3/16, pH 4/16 at the Route 632 bridge (5ACTT002.73/PL-15B)

Beginning in the 2004 cycle, the segment was also assessed as not supporting of the Recreation Use goal based on a fecal coliform violation rate of 3/17 and 5/17 at 5ACTT005.89 and 5ACTT002.73, respectively. The TMDL is due in 2016.

These stations are confined animal feeding operation (CAFO) special study stations.

IMPAIRMENT SOURCE: Unknown, Unknown

Source is unknown.

There is currently not enough data to identify the CAFO as a contributor to the impairment in this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Greensville

STREAM NAME: Fontaine Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K11R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.38 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: First confluence upstream of Mitchell

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Beaverpond Creek

RIVER MILE:

LATITUDE: **LONGITUDE:**

Fontaine Creek from the first confluence upstream of Mitchell to Beaverpond Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, pH

In the 2004 cycle, the segment was assessed as not supporting the Recreation Use and Aquatic Life use support goals based on fecal coliform and pH violation rates of 2/14 at 5AFON022.04.

IMPAIRMENT SOURCE: Unknown, Unknown

Source is unknown.

There is currently not enough data to identify the CAFO as a contributor to the impairment in this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Greensville

STREAM NAME: Fontaine Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAP-K12R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 6.42 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Mill Swamp

RIVER MILE: 6.42

LATITUDE: 36.56970 **LONGITUDE:** -77.44150

DOWNSTREAM LIMIT:

DESCRIPTION: Meherrin River

RIVER MILE: 0.00

LATITUDE: 36.55400 **LONGITUDE:** -77.37500

From Mill Creek to its mouth at the Meherrin River. Nested within segment VAP-K11R-03.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed not supporting of the Recreation Use based on a fecal coliform violation rate of 3/20 at the Route 625 bridge (5AFON006.07)

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick, Lunenburg

STREAM NAME: Waqua Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K17R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.18 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 17.45

LATITUDE: 36.91840 **LONGITUDE:** -78.01250

DOWNSTREAM LIMIT:

DESCRIPTION: Route 46 bridge

RIVER MILE: 15.35

LATITUDE: 36.92480 **LONGITUDE:** -77.98330

Waqua Creek upstream of the Route 46 bridge

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

The segment was assessed not supporting of the Aquatic Life Use and Recreation Use goals based on the following violations:
pH 7/17 at 5AWAQ020.52 (Route 617);
DO 2/11, pH 10/11 at 5AWAQ022.17;

Fecal coliform 5/19 at 5AWAQ020.52 and 2/10 at 5AWAQ022.17.

These stations are confined animal feeding operation (CAFO) special study stations.

IMPAIRMENT SOURCE: Unknown

Source is unknown. Suspected to be caused by natural conditions.

Source is unknown.

There is currently not enough data to identify the CAFO as a contributor to the impairment in this stream.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick, Dinwiddie

STREAM NAME: Nottoway River

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K17R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 11.7 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Beaverpond Creek

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Sturgeon Creek

RIVER MILE:

LATITUDE: **LONGITUDE:**

The Nottoway River from the confluence with Beaverpond Creek downstream to the confluence with Sturgeon Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed not supporting of the Recreation Use based on a fecal coliform violation rate of 14/45 at the Route 1 bridge (5ANTW109.02.)

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Brunswick

STREAM NAME: Sturgeon Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K18R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 8.06 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Lloyds Run

RIVER MILE: 8.06

LATITUDE: 36.86230 **LONGITUDE:** -77.76930

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Nottoway River

RIVER MILE: 0.00

LATITUDE: 36.90140 **LONGITUDE:** -77.67370

Sturgeon Creek from Lloyds Run to the mouth at the Nottoway River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

Sturgeon Creek was included on EPA's 1998 list of "Waters Identified to Virginia for Listing Consideration During Development of Next List." Dissolved oxygen at 5ASTG005.96 was listed as the parameter of concern. During the 2002 assessment cycle, the dissolved oxygen violation rate was acceptable, therefore the segment was considered fully supporting the aquatic life use goal.

During the year 2004 cycle, the DO remained acceptable, however the segment had a pH violation rate of 2/19. The segment is assessed not supporting of the Aquatic Life use goal. The TMDL is due in 2016.

IMPAIRMENT SOURCE: Unknown

The source of the pH impairment is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY:

STREAM NAME: Buckskin Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K19R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 11.86 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 12.16

LATITUDE: 36.99860 **LONGITUDE:** -77.71400

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.88740 **LONGITUDE:** -77.63140

Buckskin Creek from its headwaters to its mouth at the Nottoway River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed as not supporting the Recreation Use goal based on a fecal coliform violation rate of 3/9 at 5ABSK004.32.

IMPAIRMENT SOURCE: Unknown

The source of the impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Greensville, Sussex

STREAM NAME: Nottoway River

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K19R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 12.54 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Harris Swamp

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Stony Creek

RIVER MILE:

LATITUDE: **LONGITUDE:**

The Nottoway River from Harris Swamp to Stony Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed as not supporting the Recreation Use goal based on a fecal coliform violation rate of 6/49 at the Route 301 bridge (5ANTW078.20).

IMPAIRMENT SOURCE: Unknown

The source of the impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Dinwiddie, Nottoway

STREAM NAME: Butterwood Creek, White Oak Swamp, Rocky Run

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K20R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 46.43 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 16.10

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: **LONGITUDE:**

Butterwood Creek and the following tributaries:
White Oak Swamp, Reedy Creek, Rocky Run Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

The mainstems of White Oak Swamp and Butterwood Swamp were initially listed as fully supporting but threatened for dissolved oxygen in the 1998 cycle. Station 5ABTR002.80 (Route 646 bridge) was identified to Virginia for listing consideration because of dissolved oxygen.

During the year 2003 cycle, the segment was assessed partially supporting of the Aquatic Use because of pH violations (5ABTR002.80). The DO violation rate at this station was acceptable (3/38), but due to DO violations throughout the watershed (see below) the segment was extended to include Reedy Creek and Rocky Run Creek. The entire segment was listed for both pH and dissolved oxygen. The DO TMDL is due in 2010, the pH TMDL is due in 2014.

In the 2004 cycle, the segment continues to be impaired of the Aquatic Life Use because of the following:

DO 4/36, pH 5/35 at 5ABTR002.80;
DO 4/17 at 5AWOK000.54; and the results of the 1994 study indicating widespread DO violations.

IMPAIRMENT SOURCE: Natural Conditions

The DO and pH violations in this segment are attributed to natural conditions.

Targeted monitoring and wetland delineation may be necessary to identify the limits of the segment affected by natural conditions. Such segments should be reclassified as wetlands where appropriate.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Sussex

STREAM NAME: Stony Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K21R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.62 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Galley Swamp

RIVER MILE: 5.62

LATITUDE: 37.96200 **LONGITUDE:** -77.43950

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 37.94730 **LONGITUDE:** -77.38070

The mainstem of Stoney Creek from Galley Swamp downstream to its mouth

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform, pH

The segment was assessed not supporting of the Recreation and Aquatic Life Uses based on a fecal coliform violation rate of 4/30 and a pH violation rate of 5/30 at the Route 301 South bridge (5ASTO001.20).

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Dinwiddie, Sussex

STREAM NAME: Sappony Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K22R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 20.19 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 25.70

LATITUDE: 37.01750 **LONGITUDE:** -77.72130

DOWNSTREAM LIMIT:

DESCRIPTION: Spiers Pond

RIVER MILE: 4.70

LATITUDE: 36.93360 **LONGITUDE:** -77.49050

Sappony Creek from its headwaters downstream to Spiers Pond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

The segment was listed in 1998 as fully supporting but threatened. It was later identified to Virginia for listing consideration. The segment was downgraded and extended during the 2002 assessment cycle (see below). During the year 2004 cycle, the dissolved oxygen violation rate was 3/19 at the Route 619 bridge (5ASAP013.69).

The segment length was based on the results of a 1994 special study:
DO 1/1 at 5ASAP021.69 (Rt. 1 bridge);
DO 1/1 at 5ASAP018.57 (Rt. 709 bridge);
DO 1/1 at 5ASAP007.77 (Rt. 665 bridge);
DO 1/1 at 5ASAP005.54 (Rt. 40 bridge).

IMPAIRMENT SOURCE: Natural Conditions

The DO violations in this segment are attributed to natural conditions.

Targeted monitoring and wetland delineation may be necessary to identify the limits of the segment affected by natural conditions. Such segments should be reclassified as wetlands where appropriate.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Dinwiddie, Prince George, Sussex

STREAM NAME: Rowanty Creek and tribs; Gosee Swamp and tribs

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K23R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 191.03 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 13.80

LATITUDE: 37.09370 **LONGITUDE:** -77.47360

DOWNSTREAM LIMIT:

DESCRIPTION: Nottoway River

RIVER MILE: 0.00

LATITUDE: 36.97070 **LONGITUDE:** -77.34670

The entire Rowanty Creek and Gosee Swamp watersheds.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

The Rowanty Creek watershed was assessed not supporting of the Aquatic Life use support goal based on a DO violation rate of 4/10 and a pH violation rate of 3/9 at 5AHRA010.94, a pH violation rate of 9/20 at 5AROW013.14, a pH violation rate of 3/10 at 5AROW002.41 and DO, pH violations in 1994 at 5APCT001.23, 5AGRV006.00. 5AGRV004.35, 5AHRA010.94, 5AHRA003.42, 5AHRA002.92, 5AATH003.28, 5ALCC000.54, 5AROW008.64, and 5AROW004.72.

The Gosee Swamp watershed was assessed not supporting of the Aquatic Life use because of a DO violation rate of 2/2 and a pH 2/2 at 5AGSE001.35 during the 1998 cycle.

Segment expanded during the 2002 cycle to incorporate the tributaries.

IMPAIRMENT SOURCE: Natural Conditions

The DO and pH violations in this segment are attributed to natural conditions.

Targeted monitoring and wetland delineation may be necessary to identify the limits of the segment affected by natural conditions. Such segments should be reclassified as wetlands where appropriate.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Dinwiddie

STREAM NAME: Rowanty Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K23R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.11 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Gravelly Run

RIVER MILE: 13.80

LATITUDE: 37.09420 **LONGITUDE:** -77.47410

DOWNSTREAM LIMIT:

DESCRIPTION: Little Cattail Creek

RIVER MILE: 12.70

LATITUDE: 37.08240 **LONGITUDE:** -77.46690

Rowanty Creek from Gravelly Run to Little Cattail Creek. Nested in segment VAP-K23R-01.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

This segment of Rowanty Creek is considered not supporting the Recreation Use based on a fecal coliform violation rate of 6/20 at the Route 605 bridge (5AROW013.14).

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Prince George, Sussex

STREAM NAME: Nebletts Mill Run and all its tributaries

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K23R-03

ASSESSMENT CATEGORY: 5C, 5A

SEGMENT SIZE: 42.14 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 14.20

LATITUDE: 37.02780 **LONGITUDE:** -77.22860

DOWNSTREAM LIMIT:

DESCRIPTION: Nottoway River

RIVER MILE: 0.00

LATITUDE: 36.96220 **LONGITUDE:** -77.21030

The entire Nebletts Mill Run watershed.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform (2004)

The Nebletts Mill Run watershed was assessed not supporting of the Aquatic Life Use based on the following results:
DO 11/28 at the Route 35 bridge (5ANBT001.26);
DO 1/1 at 5ADBS001.86 (1994 station);
DO 1/1, pH 1/1 at 5AJOE007.38 (1994 station)

DO 2/17 at 5AXDV000.46 (previously called PL-7D),a confined animal feeding operation (CAFO) special study station.

This segment was expanded in 2002 to include the entire watershed. The TMDL for Nebletts Mill Run downstream of the Millpond is due in 2010, the TMDL for the tributaries is due in 2014.

In addition, Nebletts Run from the Millpond downstream to the mouth and Tributary XDV are both considered not supporting of the Recreation Use. Nebletts Run violated the geometric mean for fecal coliform in 2 months where 2 samples were taken. Tributary XDV had a fecal coliform instantaneous violation rate of 5/10. The fecal coliform TMDLs are not due until 2016.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The DO and pH violations in this watershed are attributed to natural swampwater conditions.

Target monitoring and wetland delineation may be necessary to identify the limits of the segment affected by natural conditions. Such segments should be reclassified as wetlands where appropriate.

The source of the fecal coliform in Nebletts Run is considered unknown. The fecal coliform in the unnamed tributary XDV is suspected to be of agricultural origin from an upstream CAFO.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Dinwiddie

STREAM NAME: Hatcher Run

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K23R-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 4.38 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Pond below Rt. 627

RIVER MILE:

LATITUDE: **LONGITUDE:**

Hatcher Run from its headwaters to the pond below Rt. 627

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

This segment of Hatcher Run is considered not supporting the Recreation Use based on a fecal coliform violation rate of 2/3 at the USGS monitoring station at the Route 627 bridge (02046265).

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Sussex

STREAM NAME: Hunting Quarter Swamp

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K24R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 15.93 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 15.7

LATITUDE: 36.87520 **LONGITUDE:** -77.38910

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.86200 **LONGITUDE:** -77.19160

Hunting Quarter Swamp from its headwaters to its mouth at the Nottoway River

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Hunting Quarter Swamp has been assessed as fully supporting but threatened of the Aquatic Life Use since the 1998 cycle based on best professional judgement. Because of its hydrological characteristics, Hunting Quarter Swamp is believed to be subject to the same dissolved oxygen and pH characteristics as other swampwaters assessed as less than fully supporting of its use support goal.

Sampling in the 2004 cycle confirmed the pH violations (2/2), therefore the segment was downgraded to impaired. Although the DO violation rate was acceptable (0/2), the samples were taken in the winter months and therefore dissolved oxygen was still added as an impairing cause based on BPJ.

IMPAIRMENT SOURCE: Natural Conditions

The DO and pH violations are attributed to natural swampwater conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton, Sussex

STREAM NAME: Nottoway River

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K24R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 18.53 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Nebletts Mill Run

RIVER MILE:

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Three Creek

RIVER MILE:

LATITUDE: **LONGITUDE:**

The Nottoway River from Nebletts Mill Run downstream to Three Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The Nottoway River was assessed not supporting of the Recreation Use goal based on a fecal coliform violation rate of 5/38 at the Rt. 631 bridge (5ANTW045.45.)

IMPAIRMENT SOURCE: Unknown

The source of the violations is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton, Sussex

STREAM NAME: Raccoon Creek, Spring Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K25R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 35.54 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 19.30

LATITUDE: 36.84850 **LONGITUDE:** -77.42010

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.79410 **LONGITUDE:** -77.16130

The entire mainstems of Raccoon Creek and Spring Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

In 1998 Raccoon Creek was assessed as impaired (Part V) of the Aquatic Life Use based on sampling at the Route 608 bridge (5ARCN003.36) and the results of a 1994 special study (See below). Spring Creek was considered fully supporting but threatened. EPA overlisted both segments for DO and pH.

During the year 2004 cycle, the segments are considered not supporting of the Aquatic Life use support goal based on a dissolved oxygen violation rate of 8/30 and a pH violation rate of 28/30 at 5ARCN003.36.

1994 special study results:
DO 2/3, pH 2/3 at 5ARCN008.86 (Rt. 631 bridge)
DO 2/3, pH 4/4 at 5ASGC004.15 (Rt. 735 bridge).

IMPAIRMENT SOURCE: Natural Conditions

The DO and pH violations in this watershed are attributed to natural swampwater conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton, Sussex

STREAM NAME: Raccoon Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K25R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 19.3 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 19.30

LATITUDE: 36.81600 **LONGITUDE:** -77.44430

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: 36.80560 **LONGITUDE:** -77.24000

The entire mainstem of Raccoon Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was initially listed as fully supporting but threatened of the Recreation use goal during the 1998 303(d) cycle. It was then identified to Virginia for listing consideration. During the 2002 303(d) cycle the segment was downgraded to impaired, therefore the TMDL is due in 2010. During the yea 2004 cycle, the segment remained not supporting of the Recreation goal based on a fecal coliform violation rate of 6/29 at the Route 608 bridge (5ARCN003.36).

IMPAIRMENT SOURCE: Unknown

The source of the fecal coliform violations is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Emporia, Greensville, Southampton, Sussex

STREAM NAME: Otterdam Swamp, Three Creek

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K26R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 19.16 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Hickory Swamp

RIVER MILE: 4.80

LATITUDE: 36.74480 **LONGITUDE:** -77.53030

DOWNSTREAM LIMIT:

DESCRIPTION: Browns Branch

RIVER MILE: 20.5

LATITUDE: 36.69740 **LONGITUDE:** -77.38250

Otterdam Swamp from Hickory Swamp to its mouth, and Three Creek from the Slagles Lake Dam downstream to Browns Branch.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Otterdam Swamp from Hickory Swamp to its mouth, and Three Creek from Otterdam Swamp to Browns Branch were assessed not supporting of the Aquatic Life use support goal based on a dissolved oxygen violation rate of 5/20 and a pH violation rate of 4/20 at 5ATRE026.75 (Route 611 bridge), as well as the results of a 1994 special study:

DO 1/1 at 5AOTD008.23 (Route 610 bridge);
DO 2/2 at 5AOTD004.31 (Route 609 bridge).

Three Creek from Slagles Lake Dam downstream to Otterdam Swamp was assessed as fully supporting with observed effects based on monitoring at 5ATRE032.25 (0/2) and the same 1994 special study:
DO 1/2 at 5ATRE031.85 (Route 616 bridge)
DO 1/2 at 5ATRE033.87 (Route 617 bridge).

Note: The pH impairment was added in 2002, therefore the TMDL is not due until 2014.

IMPAIRMENT SOURCE: Hypolimnetic Waters, Natural Conditions

During summertime low flow conditions, when there is no flow over Slagles Lake dam, hypolimnetic waters seepage occurs under the dam. Additional flow from downstream sources is suspected to further depress DO levels upstream of the Route 616 bridge. The Three Creek STP discharges upstream at the Route 616 bridge, and is predicted to have an impact on DO levels in Three Creek below the discharge.

The DO violations recorded at the Route 611 bridge monitoring station are attributed to natural conditions.

Targeted monitoring during low flow conditions is recommended to determine the extent of DO depletion when there is no water being

released over Slagles Lake dam. Targeted monitoring and wetland delineation may be necessary to identify the limits of the segment affected by natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton, Sussex

STREAM NAME: Assamoosick, Seacorrie, German, Pigeon Swamp

HYDROLOGIC UNIT: 03010201

TMDL ID: VAP-K29R-01

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 37.72 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 23.80

LATITUDE: 37.02990 **LONGITUDE:** -77.14110

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth of Assamoosick Swamp

RIVER MILE: 0.00

LATITUDE: 36.83940 **LONGITUDE:** -77.11700

Assamoosick Swamp, Seacorrie Swamp, German Swamp, Pigeon Swamp, Black Swamp, and UT to Assamoosick Swamp XDW and UT to Seacorrie Swamp XDX.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting, Wildlife Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform, Ammonia

Assamoosick Swamp, Seacorrie Swamp, German Swamp, and Pigeon Swamp were originally listed as impaired of the Aquatic Life Use in 1998 based on pH and DO violations throughout the watershed. Station 5AASM008.12 was later mistakenly listed on EPA's "Waters Identified to Virginia for Listing Consideration During Development of the Next List" for pH even though the segment was already 303(d) listed. The pH and DO TMDLs for these creeks are due in 2010.

In the year 2002 cycle, Black Swamp and UT to Assamoosick Swamp XDW were added for DO and pH, and UT to Seacorrie Swamp XDX was added for DO. In addition, XDX was considered impaired for ammonia. These TMDLs are due in 2014. Phosphorus was considered an observed effect in XDX, XDW, and portions of Seacorrie and German Swamps. This is not an impairing cause.

During the year 2004 cycle, the Aquatic Life Use impairments and observed effects remained.

In 1998, the entire mainstem of Assamoosick Swamp (23.8 miles) was assessed fully supporting but threatened of the Recreation Use. The segment was later identified to Virginia for listing consideration (station 5AASM013.36). The segment was downgraded in 2002, therefore the TMDL is due in 2010. In 2002 Black Swamp, Seacorrie Swamp, XDW, and XDX were also considered impaired of the Recreation Use. These TMDLs are due in 2014. In 2004, German Swamp was added to the impairment. This TMDL is due in 2016.

Note: the fecal coliform impairment of Assamoosick Swamp was shortened in the year 2002 cycle to end at the Route 607 bridge. There appears to be acceptable fecal coliform levels in this downstream portion (0/2 at 5AASM003.00, 0/10 at 5AASM000.89).

IMPAIRMENT SOURCE: Natural Conditions, Phosphorus, Ammonia, Unknown, NPS-Agriculture, Unknown, NPS-Agriculture

The DO and pH violations in this segment are attributed to natural conditions. Targeted monitoring and wetland delineation may be necessary to identify the limits of the segment affected by natural conditions. Such segments should be reclassified as wetlands where

appropriate.

The source of the phosphorus and ammonia violations is considered unknown, although the upstream CAFO facilities are suspected. The phosphorus is not considered an impairing cause, but should be investigated because it may be exacerbating the naturally occurring low DO and pH in the watershed.

The source of the fecal coliform violations is considered unknown. There is not enough information to determine if the CAFO facilities are the source of the impairment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Dinwiddie, Petersburg, Petersburg, Surry, Sussex

STREAM NAME: Blackwater Swamp, Warwick Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K31R-01

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 44.22 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 13.10

LATITUDE: 37.18580 **LONGITUDE:** -77.38740

DOWNSTREAM LIMIT:

DESCRIPTION: Blackwater River

RIVER MILE: 0.00

LATITUDE: 37.10100 **LONGITUDE:** -77.14500

Blackwater Swamp and Warwick Swamp from their headwaters to the Blackwater River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

Blackwater Swamp and Warwick Swamp were originally assessed as impaired of the Aquatic Life Use in 1998 due to DO and pH violations. During the year 2004 cycle, the impairment was continued on widespread violations:

DO 9/20, pH 7/20 at the Rt. 625 bridge (5ABKR003.68).
DO 3/10 at the Rt. 627 bridge (5AWKS009.11);

1994-1995 exceedances:
DO 1/2, pH 1/2 at Rt. 625 bridge (5AWKS006.46);
DO 1/2, pH 1/2 at Rt. 624 bridge (5AWKS003.66);
DO 1/2, pH 2/2 at Rt. 460 bridge (5AWKS002.12);
DO 5/7, pH 3/7 at Rt. 613 bridge (5AWKS001.00).

In the 1998 cycle, Warwick Swamp from its headwaters to the Route 627 bridge was assessed fully supporting but threatened of the Recreation use. During the year 2002 cycle, the entire mainstems of Warwick Swamp and Blackwater Swamp were considered impaired of the Recreation use. Due to an acceptable fecal coliform violation rate at 5AWKS001.00, the Warwick Swamp segment is being shortened to its original length. The fecal coliform TMDLs are due in 2014.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The DO and pH violations are suspected to be caused by natural swampwater conditions throughout the watershed.

The source of the fecal coliform violations in Blackwater Swamp is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Petersburg, Prince George

STREAM NAME: Second Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K31R-02

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 15.21 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 15.21

LATITUDE: **LONGITUDE:**

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth

RIVER MILE: 0.00

LATITUDE: **LONGITUDE:**

Second Swamp from its headwaters to its mouth at Blackwater Swamp.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

Second Swamp was assessed as not supporting the Aquatic Life Recreation Use support goals based on pH and fecal coliform violation rates of 2/9 at the Route 618 bridge (5ASEC001.11).

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The DO violations are suspected to be caused by natural swampwater conditions throughout the watershed.

The source of the fecal coliform violations is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Surry, Sussex

STREAM NAME: Blackwater River

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-01

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 24.55 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Warwick Swamp

RIVER MILE: 88.00

LATITUDE: 37.10100 **LONGITUDE:** -77.14500

DOWNSTREAM LIMIT:

DESCRIPTION: Cypress Swamp, Route 617 bridge

RIVER MILE: 58.22

LATITUDE: 37.02600 **LONGITUDE:** -77.89160

Blackwater River from Warwick Swamp to Cypress Swamp

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

This segment was assessed not supporting of the Aquatic Life Use goal based on the following violations:
DO 15/50, pH 6/50 at the Rt. 40 bridge (5ABLW074.66)
DO 11/50, pH 7/50 at the Rt. 617 bridge (5ABLW058.22)
1994 stations:
DO 4/6, pH 3/6 at the 5ABLW087.70;
DO 3/4, pH 1/4 at 5ABLW069.30;
DO 3/3, pH 1/3 at 5ABLW064.46.

The Aquatic Life Use impairment was originally listed in 1998, therefore the TMDL is due in 2010.

The segment was assessed not supporting of the Recreation Use based on a fecal coliform violation rate of 7/48 at 5ABLW074.66. The Recreation Use impairment was first listed in 2002, therefore the fecal coliform TMDL is not due until 2014.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The DO and pH violations in this segment are attributed to natural conditions.

Targeted monitoring and wetland delineation may be necessary to identify the limits of the segment affected by natural conditions. Such segments should be reclassified as wetlands where appropriate.

The source of the fecal coliform impairment is considered unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Sussex

STREAM NAME: Spring Branch

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.52 - Miles

INITIAL LISTING: 1994 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: old Borden Chemical Waverly Plant discharge

RIVER MILE: 2.70

LATITUDE: 37.05500 **LONGITUDE:** -77.12140

DOWNSTREAM LIMIT:

DESCRIPTION: Blackwater River confluence

RIVER MILE: 0.00

LATITUDE: 37.06640 **LONGITUDE:** -77.07140

From the old Borden Chemical/Spurlock Adhesives discharge to the confluence with the Blackwater River

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: General Standard (Benthic)

Severely impaired benthic community.

There are four biological monitoring stations on Spring Branch. 5ASRN002.96 is located upstream of all the discharges; 5ASRN002.66 is located 50 yards below the Route 460 bridge; 5ASRN001.24 is located 100 yards below the Sussex Service Authority's Spring Branch WWTF discharge; and 5ASRN000.65 is located downstream of Bryant's Pond, near the mouth of Spring Branch. All the stations, with the exception of the control station upstream of the discharges, rated moderately to severely impaired during the 1998 cycle.

IMPAIRMENT SOURCE: Unknown, PS - Industrial, Municipal Point Sources

The source of the impairment of Spring Branch is unknown. There are one municipal discharge and two industrial discharges to the stream. There are also extensive sludge deposits, attributed to the old Waverly primary plant (it has been upgraded to secondary treatment), in Spring Branch and Bryant's Pond, 1/4 mile downstream of the Sussex Service Authority's STP discharge.

Additional targeted monitoring is required to further characterize the nature of the impairment and to identify specific causes and sources.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Prince George, Surry, Sussex

STREAM NAME: Otterdam Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-03

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 11.53 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 12.40

LATITUDE: 37.14170 **LONGITUDE:** -77.18540

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Blackwater River

RIVER MILE: 0.00

LATITUDE: 37.07020 **LONGITUDE:** -77.04490

Mainstem from its headwaters to its mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Otterdam Swamp is considered not supporting of the Aquatic Life Use based on numerous DO & pH water quality standard violations at confined animal feeding operation (CAFO) special study stations. The TMDLs are due in 2014.

In addition, the lower portion of Otterdam Swamp downstream of Averys Pond is considered to have "observed effects" due to phosphorus and ammonia violations. These are not impairing causes.

IMPAIRMENT SOURCE: Natural Conditions

The DO and pH violations are suspected to be caused by natural swampwater conditions throughout the watershed.

The source of the ammonia and phosphorus effects is currently considered unknown, but the upstream hogfarms are suspected to be a contributing source.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY:

STREAM NAME: Otterdam Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5.58 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Averys Pond

RIVER MILE: 5.58

LATITUDE: 37.11600 **LONGITUDE:** -77.09370

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Blackwater River

RIVER MILE: 0.00

LATITUDE: 37.07020 **LONGITUDE:** -77.04490

Otterdam Swamp downstream of Averys Pond. Nested within segment VAP-K32R-03.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

The segment was assessed not supporting of the Recreation Use goal based on the following fecal coliform violation rates:

FC 4/15 at 5AOTR001.26;
FC 9/17 at 5AXDR000.38;
FC 4/12 at 5AOTR004.31;
FC 2/17 at 5AOTR005.69.

These are confined animal feeding operation (CAFO) special study stations.

IMPAIRMENT SOURCE: Unknown

Source is unknown. There is not enough data to determine if the CAFO facilities are the source of impairment in this segment.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Surry, Sussex

STREAM NAME: Coppahaunk Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-05

ASSESSMENT CATEGORY: 5A, 5C

SEGMENT SIZE: 12.49 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 12.30

LATITUDE: 37.02140 **LONGITUDE:** -77.11430

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Blackwater River

RIVER MILE: 0.00

LATITUDE: 37.03690 **LONGITUDE:** -76.96880

Mainstem from its headwaters to its mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Coppahaunk Swamp was assessed not supporting of the Aquatic Life Use based on the numerous dissolved oxygen & pH violations. The segment was initially listed in 1998 as fully supporting but threatened. The TMDLs are due in 2014.

The segment was assessed not supporting of the Recreation Use based on numerous fecal coliform violations.

In addition, phosphorus screening levels were exceeded at two stations. Therefore phosphorus is listed as an observed effect, but is not an impairing cause.

These are confined animal feeding operation (CAFO) special study stations.

IMPAIRMENT SOURCE: Unknown, NPS - Agriculture

The DO and pH violations in this segment are attributed to natural swampwater conditions throughout the watershed.

The source of the fecal coliform violations and phosphorus screening level exceedances is considered unknown, although the confined animal feeding operations are suspected.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Surry

STREAM NAME: Cypress Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-06

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 17.1 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 17.6

LATITUDE: 37.14390 **LONGITUDE:** -77.00480

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Blackwater River

RIVER MILE: 0.00

LATITUDE: 37.02600 **LONGITUDE:** -76.89160

Mainstem from its headwaters to its mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Cypress Swamp was assessed not supporting of the Aquatic Life Use based on numerous current and historical dissolved oxygen and pH violations at two locations.

The segment was initially listed as impaired in 1998. The TMDLs are due in 2010.

IMPAIRMENT SOURCE: Natural Conditions

Suspected to be caused by natural swampwater conditions throughout the watershed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Surry

STREAM NAME: Johnchecohunk Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-07

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 8.39 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 7.9

LATITUDE: 37.12840 **LONGITUDE:** -77.02240

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Blackwater River

RIVER MILE: 0.00

LATITUDE: 37.07400 **LONGITUDE:** -76.91750

Mainstem from its headwaters to its mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Johnchecohunk Swamp was assessed as fully supporting but threatened of the Aquatic Life use goal in 1998 for dissolved oxygen and pH based on a 1994 study that identified widespread violations throughout the watershed.

During the year 2004 cycle, the pH violations were confirmed (2/2). Therefore the segment has been downgraded and the pH TMDL is due in 2016.

IMPAIRMENT SOURCE: Natural Conditions

The pH violations in this segment are attributed to natural swampwater conditions throughout the watershed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY:

STREAM NAME: Cypress Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-08

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 17.1 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 17.6

LATITUDE: 37.14390 **LONGITUDE:** -77.00480

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Blackwater River

RIVER MILE: 0.00

LATITUDE: 37.02600 **LONGITUDE:** -76.89160

Mainstem from its headwaters to its mouth.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Cypress Swamp from Johnchecohunk Swamp to its mouth (5.35 miles) was originally listed as impaired of the Recreation use during the 2002 cycle based on fecal coliform violations at the Rt. 31 bridge (5ACPP003.20). During the 2004 cycle, the impairment was extended upstream to fecal coliform violations at 5A-PL-SCP1B and 5ACPP006.04. The TMDL for the upstream portion is not due until 2014.

IMPAIRMENT SOURCE: Unknown

Source is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Surry

STREAM NAME: Spring Grove Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAP-K32R-09

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 3.47 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Headwaters

RIVER MILE: 3.47

LATITUDE: 37.19410 **LONGITUDE:** -76.97460

DOWNSTREAM LIMIT:

DESCRIPTION: Mouth at Cypress Swamp

RIVER MILE: 0.00

LATITUDE: 37.15450 **LONGITUDE:** -76.95320

Mainstem from its headwaters to its mouth

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Spring Grove Swamp is considered not supporting of the Aquatic Life Use because of a DO standard violation rate of 4/6 and a pH standard violation rate of 5/6 at 5ASGS000.19, a confined animal feeding operation station located at the Route 20 bridge.

In addition, the segment is considered to have an "observed effect" due to exceedances of the total phosphorus screening level. This is not an impairing cause.

IMPAIRMENT SOURCE: Natural Conditions

The DO and pH violations are suspected to be caused by natural swampwater conditions in the watershed.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton

STREAM NAME: Tarrara Creek

HYDROLOGIC UNIT: 03010204

TMDL ID: VAT-K13R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 12.8 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at headwaters start of Tarrara Creek.

RIVER MILE: 12.80

LATITUDE: 36.70700 **LONGITUDE:** -76.43000

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence with the Meherrin River.

RIVER MILE: 0.00

LATITUDE: 36.73770 **LONGITUDE:** -76.30040

Segment from headwaters of Tarrara Cr. to confluence with Meherrin River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen were recorded at DEQ's ambient water quality monitoring station on Tarrara Cr. (5ATRR002.50) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. Sufficient exceedances of standard for Fecal Coliform Bacteria recorded at monitoring station on Tarrara Creek (5ATRR002.50) is reason to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. Cause of the D.O. standard violation are attributed to naturally occurring conditions. Cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The source of the dissolved oxygen impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton

STREAM NAME: Flat Swamp (Lower)

HYDROLOGIC UNIT: 03010204

TMDL ID: VAT-K13R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 5 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins 0.5 mi upstream of Southampton Speedway adjacent to swamp.

RIVER MILE: 5.00

LATITUDE: 36.61782 **LONGITUDE:** -77.30088

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the start of Flat Swamp.

RIVER MILE: 0.00

LATITUDE: 36.60088 **LONGITUDE:** -77.23552

Segment begins 0.5 mi upstream of Southampton Speedway adjacent to swamp downstream to the start of Flat Swamp.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen and pH were recorded at DEQ's ambient water quality monitoring station on Tarrara Cr. (5AFTS002.93) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. Sufficient exceedances of the standard for Fecal Coliform Bacteria recorded at the above monitoring station is the basis to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the D.O. and pH standard exceedances are attributed to naturally occurring conditions. Cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions, Unknown

The source of the dissolved oxygen and low pH impairments is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton

STREAM NAME: Three Creek (Upper portion in K27)

HYDROLOGIC UNIT: 03010201

TMDL ID: VAT-K27R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 10.91 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at confluence of Brown's Branch

RIVER MILE: 20.95

LATITUDE: 36.69690 **LONGITUDE:** -77.38220

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at Rt 308 crossing, above Southampton Correctional Farm.

RIVER MILE: 10.04

LATITUDE: 36.73020 **LONGITUDE:** -77.25150

Segment near Adams Grove to 0.3 mi. downstream Rt 308.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Sufficient exceedances of water quality standards for Dissolved Oxygen were recorded at DEQ's ambient water quality monitoring station on Three Creek (5ATRE016.02) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the standard violation is attributed to naturally occurring conditions.

IMPAIRMENT SOURCE: Natural Conditions

The source of the impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton

STREAM NAME: Three Creek (Lower portion in K27)

HYDROLOGIC UNIT: 03010201

TMDL ID: VAT-K27R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 10.04 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins 0.5 mi. downstream Rt 308, upstream of Southampton Correctional Farm.

RIVER MILE: 10.04

LATITUDE: 36.73020 **LONGITUDE:** -77.25150

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence of Three Creek with the Meherrin River.

RIVER MILE: 0.00

LATITUDE: 36.79450 **LONGITUDE:** -77.16210

Segment from 0.3 mi. downstream Rt 308 to confluence with Meherrin River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

Sufficient exceedances of standards for Dissolved Oxygen and pH were recorded at station on the lower portion of Three Creek (5ATRE008.48) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. Sufficient exceedances of the standard for Fecal Coliform Bacteria recorded at the above monitoring station is the basis to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2002 305(b) report. Cause of the D.O. and pH standard exceedances are attributed to naturally occurring conditions. Cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions, Unknown

The source of the Dissolved Oxygen and pH impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform Bacteria impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton, Sussex

STREAM NAME: Applewhite Swamp

HYDROLOGIC UNIT: 03010201

TMDL ID: VAT-K27R-03

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 6.24 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins 5.2 miles upstream from monitoring station at (5AAPW001.04)

RIVER MILE: 6.24

LATITUDE: 36.77437 **LONGITUDE:** -77.40643

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth, confluence with Three Creek

RIVER MILE: 0.00

LATITUDE: 36.72150 **LONGITUDE:** -77.34084

Segment begins 5.2 miles upstream of monitoring station @ RM 6.24 and extends downstream to confluence with Three Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: pH

Sufficient exceedances (2/2) of standards for pH were recorded at station on Applewhite Swamp (5AAPW001.04) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. The cause of the pH standard exceedances is attributed to naturally occurring conditions in swamps.

IMPAIRMENT SOURCE: Natural Conditions

The monitoring station (5AAPW001.04) is located on Applewhite Swamp, which empties into Three Creek. The land use in the watershed is mixed forest and swamp. The source of the pH standard exceedances is attributed to naturally occurring conditions in swamps. Water Quality Standards revision is needed to reflect swamp natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton

STREAM NAME: Darden Mill Run

HYDROLOGIC UNIT: 03010201

TMDL ID: VAT-K30R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 9.59 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters of Darden Mill Run.

RIVER MILE: 9.59

LATITUDE: 36.54420 **LONGITUDE:** -77.00620

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the VA/NC state line.

RIVER MILE: 0.00

LATITUDE: 36.62160 **LONGITUDE:** -77.14380

Segment extends the length of Darden Mill Run, headwaters to VA/NC state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

Sufficient exceedances of the standard for Dissolved Oxygen and pH recorded at station (5ADMR008.42) on Darden Mill Run to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 & 2004 305(b) reports. The cause of the D.O. & pH standard violations is attributed to naturally occurring conditions. Sufficient exceedances of the standard for Fecal Coliform Bacteria recorded at the above monitoring station is the basis to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions, Unknown

The source of the DO & pH impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform bacteria standard violation is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Franklin City, Isle of Wight, Southampton, Suffolk

STREAM NAME: Blackwater River (Downstream from Zuni)

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K33R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 40.22 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the Route 460 crossing Blackwater R @ Zuni.

RIVER MILE: 40.22

LATITUDE: 36.86857 **LONGITUDE:** -76.83552

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the Virginia/North Carolina state line.

RIVER MILE: 0.00

LATITUDE: 36.54387 **LONGITUDE:** -76.91635

Segment extends from the Rt 460 crossing (@ Zuni) downstream to the Virginia/North Carolina state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: Hg

A VDH fish consumption advisory (Issued 10/2003 due to DEQ total Hg fish tissue data) is the cause of the impairment of the Fish Consumption Use Support Goal for the 2004 305(b) report. This advisory extends from State Rt 460 at Zuni downstream approximately 40 miles to the Virinia/North Carolina state line. The advisory warns that "no more than two meals per month of any gamefish should be consumed due to mercury levels". The cause of the Hg in fish tissue is unknown.

IMPAIRMENT SOURCE: Unknown

The source of the impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Isle of Wight, Southampton

STREAM NAME: Blackwater River (Upper)

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K33R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 21.98 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the Route 620 crossing crossing of the Blackwater River near Walls Bridge (start of

RIVER MILE: 57.2

LATITUDE: 36.90560 **LONGITUDE:** -76.81690

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends 0.1 mi downstream of the confluence with Antioch Swamp.

RIVER MILE: 35.22

LATITUDE: 36.83070 **LONGITUDE:** -76.85690

Segment extends from the Route 620 crossing crossing of the Blackwater River near Walls Bridge (start of watershed) downstream to 0.1 mi downstream of the confluence with Antioch Swamp (RM 35.22).

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen (DO) were recorded at monitoring station (5ABLW040.22) on Blackwater R. to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the DO standard violation is attributed to naturally occurring conditions. Sufficient exceedances of Virginia's water quality standard for Fecal Coliform Bacteria were recorded at the above monitoring station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The source of the DO impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform bacteria standard violation is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Isle of Wight, Surry

STREAM NAME: Mill Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K34R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 10.13 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at start of Mill swamp (confluence with Moores Swamp).

RIVER MILE: 10.13

LATITUDE: 36.95910 **LONGITUDE:** -76.77190

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence with Rattlesnake Swamp.

RIVER MILE: 0.00

LATITUDE: 36.04920 **LONGITUDE:** -76.83040

Segment extends from confluence with Moores Swamp to confluence with Rattlesnake Swamp.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

Sufficient exceedances of standard for Dissolved Oxygen and pH were recorded at a station on Mill Swamp (5AMSW006.77) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. Sufficient exceedances of the standard for Fecal Coliform bacteria recorded at the above station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2002 305(b) report. The cause of the D.O. and pH standard exceedances are attributed to naturally occurring conditions. The cause of the Fecal Coliform bacteria standard violation is the presence of enteric bacteria.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions, Unknown

The source of the Dissolved Oxygen and pH impairments is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform bacteria standard violation is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Isle of Wight

STREAM NAME: Rattlesnake (Creek) Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K34R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 7.5 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at confluence of Mill Swamp (RM 5.4) slightly upstream of Rt. 637 crossing.

RIVER MILE: 5.40

LATITUDE: 36.96100 **LONGITUDE:** -76.73790

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at confluence with the Blackwater River.

RIVER MILE: 0.00

LATITUDE: 36.91240 **LONGITUDE:** -76.81550

Segment begins at confluence of Mill Swamp (RM 5.4) slightly upstream of Rt. 637 crossing and ends at confluence with the Blackwater River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

Sufficient exceedances of water quality standards for Dissolved Oxygen were recorded at DEQ's ambient water quality monitoring station on Rattlesnake Swamp (5ARKN006.40) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. Sufficient exceedances of Virginia's water quality standard for Fecal Coliform Bacteria were recorded at the above monitoring station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2002 305(b) report. The cause of the D.O. standard violation is attributed to naturally occurring conditions. The cause of the Fecal Coliform bacteria standard violation is the presence of enteric bacteria.

IMPAIRMENT SOURCE: Unknown, Unknown

The source of the Dissolved Oxygen impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform bacteria standard violation is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Sussex

STREAM NAME: Seacock Swamp (Upper)

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K35R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 0.8 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the spillway of Drumwright Pond, near Wakefield.

RIVER MILE: 19.35

LATITUDE: 36.95600 **LONGITUDE:** -77.00090

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence with an unnamed tributary, approx. 0.1 mi. downstream of Rt 628.

RIVER MILE: 18.55

LATITUDE: 36.95410 **LONGITUDE:** -76.98950

Segment extends from Drumwright Pond downstream to confluence with UT, 0.1 mi. downstream Rt 628.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Sufficient exceedances of water quality standards for Dissolved Oxygen and pH were recorded at DEQ's ambient water quality monitoring station on Seacock Swamp (5ASCK018.65) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 & 2004 305(b) reports.The cause of the standard violations is attributed to naturally occurring conditions.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions

The source of the impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton

STREAM NAME: Seacock Swamp (Lower)

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K35R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 2.47 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the confluence of Brantley Swamp (RM 8.73).

RIVER MILE: 8.73

LATITUDE: 36.87940 **LONGITUDE:** -76.92530

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence with Round Hill Swamp (RM 6.26).

RIVER MILE: 6.26

LATITUDE: 36.85020 **LONGITUDE:** -76.91860

Segment from confluence of Brantley Swamp to confluence with Round Hill Swamp.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient exceedances of the standard for Fecal Coliform bacteria were recorded at DEQ's ambient water quality monitoring station on lower Seacock Swamp (5ASCK006.96) to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the Fecal Coliform bacteria standard violation is the presence of enteric bacteria.

IMPAIRMENT SOURCE: Unknown

The source of the Fecal Coliform bacteria standard violation is unknown

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Sussex

STREAM NAME: Seacock Swamp unnamed tributary

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K35R-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.06 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at headwaters.

RIVER MILE: 1.06

LATITUDE: 36.00000 **LONGITUDE:** -77.00000

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at confluence with Seacock Swamp.

RIVER MILE: 0.00

LATITUDE: 36.00000 **LONGITUDE:** -77.00000

Segment begins at headwaters and ends at confluence with Seacock Swamp.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen and pH recorded at monitoring station (5AXDY000.96) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. This is an area of hardwood swamp/wetlands where low dissolved oxygen and pH levels can naturally occur. Sufficient exceedances of the standard for Fecal Coliform Bacteria recorded at the above station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. Cause of the depressed D.O. and pH is believed to be naturally occurring. Cause of the Fecal Coliform bacteria exceedance is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions, Unknown

The monitoring station (5AXDY000.96) is located on on an unnamed Tributary to Seacock Swamp. The land use in the watershed is primarily wetlands & low density residential. The watershed potentially receives inputs from confined animal feeding operations, wetlands areas and storm water runoff. The source of the depressed D.O. and pH is believed to be naturally occurring. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform bacteria exceedance is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Sussex

STREAM NAME: Airfield Pond (Lower) unnamed tributary

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K35R-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 1.23 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins near Route 622.

RIVER MILE: 1.23

LATITUDE: 36.92179 **LONGITUDE:** -77.02746

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth, where it empties into Airfield Pond

RIVER MILE: 0.00

LATITUDE: 36.91252 **LONGITUDE:** -77.03109

Segment begins near Rt 622 and ends at mouth where it empties into Airfield Pond.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH, Fecal Coliform

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen and pH recorded at monitoring station (5AXDZ000.81) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. This is an area of hardwood swamp/wetlands where low dissolved oxygen and pH levels can naturally occur. Sufficient exceedances of the standard for Fecal Coliform Bacteria recorded at the above station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. Cause of the depressed D.O. and pH is believed to be naturally occurring. Cause of the Fecal Coliform bacteria exceedance is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions, Unknown

The monitoring station (5AXDZ000.81) is located on on an unnamed Tributary to Airfield Pond. The land use in the watershed is primarily wetlands & low density residential. The watershed potentially receives inputs from wetlands areas and some storm water runoff. The source of the depressed D.O. and pH is believed to be naturally occurring. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform bacteria exceedance is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Sussex

STREAM NAME: Airfield Pond (Upper) unnamed tributary

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K35R-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.58 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins north of Route 622.

RIVER MILE: 1.81

LATITUDE: 36.92858 **LONGITUDE:** -77.03317

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at confluence with lower portion of UT.

RIVER MILE: 1.23

LATITUDE: 36.92179 **LONGITUDE:** -77.02746

Segment begins north of Route 622 and ends at confluence with lower portion of UT.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen recorded at monitoring station (5AXDZ001.73) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. This is an area of hardwood swamp/wetlands where low dissolved oxygen can naturally occur. Sufficient exceedances of the standard for Fecal Coliform Bacteria recorded at the above station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. Cause of the depressed D.O. is believed to be naturally occurring. Cause of the Fecal Coliform bacteria exceedance is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

The monitoring station (5AXDZ001.73) is located on on an unnamed Tributary to Airfield Pond. The land use in the watershed is primarily wetlands & low density residential. The watershed potentially receives inputs from wetlands areas and some storm water runoff. The source of the depressed D.O. is believed to be naturally occurring. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform bacteria exceedance is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton

STREAM NAME: Brantley Swamp

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K35R-07

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 7.04 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at confluence with Lightwood Swamp, upstream of monitoring station (5ABNT002.70)

RIVER MILE: 7.04

LATITUDE: 36.88310 **LONGITUDE:** -76.96534

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth, confluence with Seacock Swamp

RIVER MILE: 0.00

LATITUDE: 36.87944 **LONGITUDE:** -76.92527

Segment begins at confluence with Lightwood Swamp and extends downstream to the confluence with Seacock Swamp.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Sufficient exceedances of Virginia's water quality standards for Dissolved Oxygen and pH were recorded at DEQ's ambient water quality monitoring station on Brantley Swamp (5ABNT002.70) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. The cause of the standard violation is attributed to naturally occurring conditions.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions

The monitoring station (5ABNT002.70) is located on Brantley Swamp, which empties into Seacock Swamp. The land use in the watershed is primarily wetlands & low density residential. The watershed potentially receives inputs from wetlands areas and some storm water runoff. The source of the impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Franklin City, Isle of Wight, Southampton, Suffolk

STREAM NAME: Blackwater River (Lower)

HYDROLOGIC UNIT: 03010202

TMDL ID: VAT-K36R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 19.87 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at river mile 19.87 (from unnamed tributary near Town of Edgehill.

RIVER MILE: 19.87

LATITUDE: 36.69940 **LONGITUDE:** -76.91880

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at Virginia/North Carolina state line.

RIVER MILE: 0.00

LATITUDE: 36.62990 **LONGITUDE:** -76.89160

Segment begins at river mile 19.87 (from unnamed tributary near Town of Edgehill and ends at Virginia/North Carolina state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen were recorded at monitoring stations (5ABLW016.27, 5ABLW014.88, 5ABLW014.28 5ABLW013.16, 5ABLW012.96, 5ABLW012.28, 5ABLW011.48, 5ABLW010.60, 5ABLW009.80, 5ABLW009.14, 5ABLW001.10) on Blackwater River to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 & 2004 305(b) reports. The cause of the standard violation is attributed to naturally occurring conditions.

IMPAIRMENT SOURCE: Natural Conditions

The source of the impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Southampton

STREAM NAME: Buckhorn Creek unnamed tributary

HYDROLOGIC UNIT: 03010203

TMDL ID: VAT-K37R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 1.52 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins upstream 1.52 mi. from station 5AXDN000.48 @ Rt. 258 crossing at VA/NC state line.

RIVER MILE: 1.52

LATITUDE: 36.54550 **LONGITUDE:** -76.98990

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the point where the unnamed tributary crosses the VA/NC state line.

RIVER MILE: 0.00

LATITUDE: 36.54410 **LONGITUDE:** -76.96670

Segment extends 1.52 mi. upstream to VA/NC state line crossing of unnamed tributary..

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Sufficient exceedances of Virginia's water quality standards for Dissolved Oxygen and pH were recorded at DEQ's ambient water quality monitoring station on Unnamed tributary to Buckhorn Cr. (5AXDN000.48) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the standard violation is attributed to naturally occurring conditions.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions

The source of the impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Suffolk

STREAM NAME: Somerton Creek

HYDROLOGIC UNIT: 03010203

TMDL ID: VAT-K38R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 13.78 - Miles

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins 5.00 mi. upstream from Rt. 745 crossing of Buckhorn Creek.

RIVER MILE: 13.78

LATITUDE: 36.56580 **LONGITUDE:** -76.81240

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the point where Buckhorn Creek crosses the VA/NC state line.

RIVER MILE: 0.00

LATITUDE: 36.55160 **LONGITUDE:** -76.89810

Segment from 5.00 mi. upstream from Rt. 745 crossing to VA/NC state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Sufficient exceedances of Virginia's water quality standards for Dissolved Oxygen and pH were recorded at DEQ's ambient water quality monitoring station on Somerton Cr. (5ASTN008.78) to assess this segment as not and not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the standard violation is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions

The source of the impairment is attributed to naturally occurring conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Suffolk

STREAM NAME: Somerton Creek unnamed tributary (March Swam

HYDROLOGIC UNIT: 03010203

TMDL ID: VAT-K38R-02

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 7.47 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins 5.7 miles upstream from monitoring station (5AXEN001.65)

RIVER MILE: 7.47

LATITUDE: 36.63310 **LONGITUDE:** -76.82773

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth, confluence with Somerton Creek

RIVER MILE: 0.00

LATITUDE: 36.55967 **LONGITUDE:** -76.85068

Segment begins 5.7 miles upstream of monitoring station @ RM 7.35 and extends downstream confluence with Somerton Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Sufficient exceedances of Virginia's water quality standards for Dissolved Oxygen and pH were recorded at DEQ's monitoring station (5AXEN001.65) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. The cause of the standard violation is attributed to naturally occurring conditions for swamps. Water Quality Standards revision is needed to reflect swamp natural conditions.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions

The monitoring station (5AXEN001.65) is located on a tributary (March Swamp), which empties into Somerton Creek. The land use in the watershed is primarily wetlands & low density residential. The watershed potentially receives inputs from wetlands areas and some storm water runoff. The source of the impairment is attributed to naturally occurring conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Suffolk

STREAM NAME: Chapel Swamp

HYDROLOGIC UNIT: 03010203

TMDL ID: VAT-K38R-03

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 3.85 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins 7.6 miles upstream from monitoring station (5ACHP002.03)

RIVER MILE: 3.85

LATITUDE: 36.65618 **LONGITUDE:** -76.75549

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth, confluence with Somerton Creek

RIVER MILE: 0.00

LATITUDE: 36.57291 **LONGITUDE:** -76.80350

Segment begins 7.63 miles upstream of monitoring station @ RM 9.66 and extends downstream confluence with Somerton Creek

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, pH

Sufficient exceedances of Virginia's water quality standards for Dissolved Oxygen and pH were recorded at DEQ's monitoring station (5ACHP002.03) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. The cause of the standard violation is attributed to naturally occurring conditions for swamps. Water Quality Standards revision is needed to reflect swamp natural conditions.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions

The monitoring station (5ACHP002.03) is located on Chapel Swamp, which empties into Somerton Creek. The land use in the watershed is primarily wetlands & low density residential. The watershed potentially receives inputs from wetlands areas and some storm water runoff. The source of the impairment is attributed to naturally occurring conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Chesapeake

STREAM NAME: Feeder Canal to Dismal Swamp

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K39R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 14.16 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the Deep Creek locks.

RIVER MILE: 14.16

LATITUDE: 36.74100 **LONGITUDE:** -76.34490

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the VA/NC state line.

RIVER MILE: 0.00

LATITUDE: 36.55070 **LONGITUDE:** -76.37750

Segment from Deep Creek locks downstream to VA/NC state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting, Fish Consumption Use - Not Supporting

IMPAIRMENT CAUSE: pH, Dissolved Oxygen, Fish Tissue - Hg

Sufficient exceedances of Virginia's water quality standards for Dissolved Oxygen & pH were recorded at DEQ's ambient water quality monitoring station on Unnamed tributary to Lake Drummond (5BXCK000.00) to assess this segment as not-supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the Dissolved Oxygen & pH standard violations is attributed to naturally occurring conditions. A VDH fish consumption advisory (issued 10/2003 due to total Hg reported in DEQ fish tissue samples) is the cause of the Fish Consumption Use Support Goal impairment for the 2004 305(b) report.This advisory extends from the Deep Creek Locks downstream approximately 14 miles to the Virinia/North Carolina state line (including the feeder ditch to Lake Drummond). The advisory warns that "no more than two meals of any gamefish should be consumed due to mercury levels". The cause of the Hg in fish tissue exceedance is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions, Unknown

The source of the pH impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Hg impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Chesapeake

STREAM NAME: Northwest River (Lower) unnamed tributary

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K40R-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.94 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the Saint Brides Road crossing.

RIVER MILE: 3.94

LATITUDE: 36.60400 **LONGITUDE:** -76.55260

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the unnamed tributary's confluence with the Northwest River.

RIVER MILE: 0.00

LATITUDE: 36.56520 **LONGITUDE:** -76.20220

Segment from St Brides Rd crossing to confluence with Northwest River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Sufficient exceedances of Virginia's water quality standards for Dissolved Oxygen were recorded at DEQ's ambient water quality monitoring station on this unnamed tributary to the Northwest River (5BXAM000.60) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the standard violation is unknown.

IMPAIRMENT SOURCE: Unknown

The source of the impairment is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Chesapeake

STREAM NAME: Northwest River (Upper & Middle)

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K40R-02

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 13.63 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters.

RIVER MILE: 21.86

LATITUDE: 36.60180 **LONGITUDE:** -76.27680

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the unnamed tributary downstream of Smith Creek.

RIVER MILE: 8.23

LATITUDE: 36.56740 **LONGITUDE:** -76.15210

Segment begins at the headwaters downstream to unnamed tributary south of Smith Cr.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Sufficient exceedances of water quality standards for Dissolved Oxygen were recorded at DEQ's ambient water quality monitoring station on the Northwest River (BNTW012.86, BNTW011.90, BNTW010.23, 5BNTW009.49, 5BNTW0008.97) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 & 2004 305(b) report. The cause of the standard violation is attributed to naturally occurring conditions.

IMPAIRMENT SOURCE: Unknown

The source of the impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Chesapeake

STREAM NAME: Indian Creek

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K40R-06

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.48 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the Saint Brides Road bridge crossing Indian Creek.

RIVER MILE: 3.48

LATITUDE: 36.60380 **LONGITUDE:** -76.22580

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence of the Indian River with the Northwest River.

RIVER MILE: 0.00

LATITUDE: 36.57240 **LONGITUDE:** -76.16220

Segment begins at the Saint Brides Road bridge downstream to confluence Northwest R.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform & E.coli

Sufficient exceedances of Virginia's dissolved oxygen (DO) standard recorded on Indian Creek (5BIND001.15) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. This area is hardwood swamp/wetlands where low D.O. levels can naturally occur. Sufficient exceedances of Virginia's water quality standard for Fecal Coliform & E.coli bacteria were recorded at the above monitoring station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2002 305(b) report. The cause of the depressed DO concentrations is suspected to be naturally occurring. The cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Unknown, Unknown

The Indian Creek monitoring station is located at the Indian Creek Road bridge, in the Saint Brides area of Chesapeake. The land use in the watershed is mixed forested, agricultural production, and residential. The watershed potentially receives inputs from wetlands areas, residential sewage treatment systems, and storm water runoff associated with the surrounding residential /agricultural area. The specific source of the depressed dissolved oxygen concentrations is currently unknown, but believed to be naturally occurring. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform & E.coli bacteria standard violations is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Chesapeake, Virginia Beach

STREAM NAME: Pocaty River

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K41R-01

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 6.61 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2014

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters of Pocaty Creek.

RIVER MILE: 6.61

LATITUDE: 36.68023 **LONGITUDE:** -76.15293

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends downstream at the confluence of Pocaty Creek with the North Landing River.

RIVER MILE: 0.00

LATITUDE: 36.67785 **LONGITUDE:** -76.06976

Segment from headwaters downstream to confluence with North Landing River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen were recorded on Pocaty Creek (5BPCT001.79) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. This is an area of hardwood swamp/wetlands where low dissolved oxygen levels can naturally occur. The cause of the depressed Dissolved Oxygen concentrations is currently unknown, but is suspected to be naturally occurring.

IMPAIRMENT SOURCE: Unknown

The Pocaty River monitoring station is located at the Route 190 (Blackwater Road) Bridge, in the Fentress area of Virginia Beach. The land use in the watershed is mixed forested, agricultural production, and residential. The watershed potentially receives inputs from wetlands areas, residential sewage treatment systems, and storm water runoff associated with the surrounding residential /agricultural area. This is an area of hardwood swamp/wetlands where low dissolved oxygen levels can naturally occur. The specific source of the depressed dissolved oxygen concentrations is believed due to high organic content and stagnant flow conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Virginia Beach

STREAM NAME: Milldam Creek

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K41R-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.29 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the headwaters of Blackwater Creek.

RIVER MILE: 3.29

LATITUDE: 36.57907 **LONGITUDE:** -76.08000

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence of Blackwater Creek with the North Landing River.

RIVER MILE: 0.00

LATITUDE: 36.59748 **LONGITUDE:** -76.04874

Segment from headwaters downstream to confluence with North Landing River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen were recorded on Milldam Creek (5BMLD001.92) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 & 2004 305(b) report. This is an area of hardwood swamp/wetlands where low dissolved oxygen levels can naturally occur. Sufficient exceedances of Virginia's water quality standard for Fecal Coliform Bacteria were recorded at the above monitoring station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2002 & 2004 305(b) report. The cause of the depressed Dissolved Oxygen concentrations is currently unknown, but is suspected to be naturally occurring. The cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Unknown, Unknown

The Milldam Creek monitoring station is located at the Route 190 (Blackwater Road) Bridge, in the Fentress area of Virginia Beach. The land use in the watershed is mixed forested, agricultural production, and residential. The watershed potentially receives inputs from wetlands areas, residential sewage treatment systems, and storm water runoff associated with the surrounding residential /agricultural area. This is an area of hardwood swamp/wetlands where low dissolved oxygen levels can naturally occur. The specific source of the enteric bacteria causing the elevated Fecal Coliform Bacteria levels is currently unknown. The specific source of the depressed dissolved oxygen concentrations is believed due to high organic content and stagnant flow conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

Additional monitoring is necessary to determine whether the impairment is not naturally occuring.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Chesapeake, Virginia Beach

STREAM NAME: Albemarle Canal (upstream of North Landing River

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K41R-03

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 10.66 - Miles

INITIAL LISTING: 2002 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the Great Bridge Locks, head of Albemarle & Chesapeake Canal.

RIVER MILE: 22.84

LATITUDE: 36.71990 **LONGITUDE:** -76.24170

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends downstream at island in North Landing River (RM 12.18), upstream of West Neck Creek.

RIVER MILE: 12.18

LATITUDE: 36.69740 **LONGITUDE:** -76.07360

Segment begins at Great Bridge locks (head of Albemarle & Chesapeake Canal) and ends downstream at island in North Landing River (RM 12.18), upstream of West Neck Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Chloride

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen and Chloride were recorded at monitoring station in the Albemarle & Chesapeake Canal (5ANLR013.61 & 5BNRL010.75) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. This is an area of hardwood swamp/wetlands where low dissolved oxygen levels can naturally occur. The cause of the depressed Dissolved Oxygen concentrations is suspected to be naturally occurring and due to high organic content and stagnant conditions within the canal. The cause of the chloride standard exceedance is attributed to naturally occurring conditions of saline water intrusion from downstream estuarine waters (Currituck Sound).

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions

The land use in the watershed is mixed agricultural , forested, and residential. The watershed potentially receives inputs from wetlands areas, residential sewage treatment systems, and storm water runoff associated with the surrounding forested / agricultural / residential area. This is an area of hardwood swamp/wetlands where low dissolved oxygen levels can naturally occur. The source of the elevated chloride concentrations is attributed to a naturally occurring condition of saline water intrusion from downstream estuarine waters (Currituck Sound). The source of the DO & chloride standard exceedance is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect natural conditions in this waterway.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Chesapeake, Virginia Beach

STREAM NAME: North Landing River

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K41R-04

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 12.01 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at the island in North Landing River (RM 12.18), upstream of West Neck Creek.

RIVER MILE: 12.01

LATITUDE: 36.69740 **LONGITUDE:** -76.07360

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends downstream at Virginia/North Carolina state line.

RIVER MILE: 0.00

LATITUDE: 36.55040 **LONGITUDE:** -76.02430

Segment begins at the island in North Landing River (RM 12.18), upstream of West Neck Creek and ends downstream at Virginia / North Carolina state line.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Chloride

Sufficient exceedances of Virginia's water quality standard for Chloride were recorded at monitoring stations in the North Landing River (5BNLR010.75, 5BNRL010.25, 5BNRL007.56, 5BNRL005.56, 5BNRL003.83, 5BNRL002.11) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 305(b) report. The cause of the chloride standard exceedance is attributed to naturally occurring conditions of saline water intrusion from downstream estuarine waters (Currituck Sound).

IMPAIRMENT SOURCE: Natural Conditions

The land use in the watershed is mixed agricultural , forested, and residential. The watershed potentially receives inputs from wetlands areas, residential sewage treatment systems, and storm water runoff associated with the surrounding forested / agricultural / residential area. The source of the elevated chloride concentrations is attributed to a naturally occurring condition of saline water intrusion from downstream estuarine waters (Currituck Sound). Water Quality Standards revision is needed to reflect natural chlorice conditions in this waterway.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Virginia Beach

STREAM NAME: West Neck Creek (Middle)

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K41R-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 3.1 - Miles

INITIAL LISTING: 1998 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at southside of Princess Anne Rd. crossing.

RIVER MILE: 6.20

LATITUDE: 36.75587 **LONGITUDE:** -76.03996

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at widening of creek (RM 3.10) approx. 0.55 mi downstream of Indian River Road crossin

RIVER MILE: 3.10

LATITUDE: 36.72396 **LONGITUDE:** -76.03596

Segment begins at southside of Princess Anne Rd. crossing and ends at widening of creek (RM 3.10) approx. 0.55 mi downstream of Indian River Road crossing.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Chloride, Fecal Coliform

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen and Chloride were recorded at DEQ's ambient water quality monitoring station on West Neck Cr. (5BWNC003.65) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 & 2004 305(b) reports. The cause of the depressed Dissolved Oxygen concentrations is suspected to be naturally occurring and due to high organic content and stagnant conditions within swamp waters. The cause of the chloride standard exceedance is attributed to naturally occurring conditions of saline water intrusion from upstream and downstream estuarine waters. Sufficient exceedances of Virginia's water quality standard for Fecal Coliform Bacteria were recorded at the above monitoring station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Natural Conditions, Unknown

This is an area of hardwood swamp/wetlands where low dissolved oxygen levels can naturally occur. The source of the Dissolved Oxygen and Chloride impairments is attributed to naturally occurring conditions. The source of the depressed Dissolved Oxygen concentrations is suspected to be due to high organic content and stagnant conditions within swamp waters. The cause of the chloride standard exceedance is attributed to saline water intrusion from upstream and downstream estuarine waters. Water Quality Standards revision is needed to reflect swamp natural conditions. The source of the Fecal Coliform bacteria standard exceedance is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Virginia Beach

STREAM NAME: West Neck Creek (Lower)

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K41R-06

ASSESSMENT CATEGORY: 5C

SEGMENT SIZE: 3.71 - Miles

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at widening of creek (RM 3.10) approx. 0.55 mi downstream of Indian River Road crossi

RIVER MILE: 3.71

LATITUDE: 36.72396 **LONGITUDE:** -76.03596

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth (RM 0.0) at confluence with North Landing River.

RIVER MILE: 0.00

LATITUDE: 36.68460 **LONGITUDE:** -76.06540

Segment begins at widening of creek (RM 3.10) approx. 0.55 mi downstream of Indian River Road crossing and ends at mouth (RM 0.0) at confluence with North Landing River.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting

IMPAIRMENT CAUSE: Chloride

Sufficient exceedances of Virginia's water quality standard for Chloride were recorded at monitoring station on West Neck Creek (5BWNC001.73) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2004 305(b) report. The cause of the chloride standard exceedance is attributed to naturally occurring conditions of saline water intrusion from downstream estuarine waters (Currituck Sound).

IMPAIRMENT SOURCE: Natural Conditions

This is an area of hardwood swamp/wetlands. The source of the impairment is attributed to naturally occurring conditions. Water Quality Standards revision is needed to reflect swamp natural conditions.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Virginia Beach

STREAM NAME: Nawney Creek (Upper)

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K42E-01

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.03 - Sq. Mi.

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins 0.08 mile upstream of Nawney road crossing of Nawney Creek.

RIVER MILE: 4.09

LATITUDE: 36.65332 **LONGITUDE:** -76.01736

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends 0.92 mile down stream of Nawney road crossing of Nawney Creek.

RIVER MILE: 0.92

LATITUDE: 36.64688 **LONGITUDE:** -76.00733

Segment extends 0.08 mile up and 0.92 mile down stream of Nawney road crossing of Nawney Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Aquatic Life Use - Not Supporting, Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Dissolved Oxygen, Fecal Coliform & Enterococci

Sufficient exceedances of Virginia's water quality standard for Dissolved Oxygen recorded at station on Nawney Cr. (5BNWN001.84) to assess this segment as not supporting of the Clean Water Act's Aquatic Life Use Support Goal for the 2002 & 2004 305(b) reports. The cause of the dissolved oxygen standard violation is attributed to naturally occurring conditions for swamp areas with high organic matter and low flow velocities. Sufficient exceedances of Virginia's water quality standard for Fecal Coliform & Enterococci bacteria were recorded at the above monitoring station to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the Fecal Coliform bacteria standard violation is unknown.

IMPAIRMENT SOURCE: Natural Conditions, Unknown

This is an area of hardwood swamp/wetlands where low dissolved oxygen levels can naturally occur due to high organic matter content and low flow velocities. The source of the low dissolved oxygen impairment is attributed to naturally occurring conditions. The land use in the watershed is mixed agricultural and livestock production. Nearby farm fields are spray irrigated using effluent from animal rearing facilities. The watershed potentially receives inputs from residential sewage treatment systems, wetlands areas, and storm water runoff associated with the surrounding residential /agricultural area. The cause of the Fecal Coliform bacteria standard violation is unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Virginia Beach

STREAM NAME: Nawney Creek (Lower)

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K42E-02

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.06 - Sq. Mi.

INITIAL LISTING: 1996 **TMDL SCHEDULE:** 2010

UPSTREAM LIMIT:

DESCRIPTION: Segment begins one-half mile upstream Nawney Cr.

RIVER MILE: 0.92

LATITUDE: 36.64688 **LONGITUDE:** -76.00733

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at the confluence with Back Bay

RIVER MILE: 0.00

LATITUDE: 36.63523 **LONGITUDE:** -75.99317

Segment begins one-half mile upstream of the Nawney Creek Road bridge crossing Nawney Creek.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient exceedances of the Fecal Coliform bacteria standard at monitoring station 5BNWN000.00 to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2002 & 2004 305(b) reports. The cause of the Fecal Coliform bacteria standard violation is the presence of enteric bacteria.

IMPAIRMENT SOURCE: Unknown

The Nawney Creek station is located at the confluence of Nawney Creek with Back Bay (5BNWN000.00). The land use in the watershed is mixed agricultural and livestock production. Nearby farm fields are spray irrigated using effluent from animal rearing facilities. The watershed potentially receives inputs from residential sewage treatment systems, wetlands areas, and storm water runoff associated with the surrounding residential /agricultural area. The specific source of the enteric bacteria causing the Fecal Coliform Bacteria standard violations is currently unknown.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Virginia Beach

STREAM NAME: Hell Point Creek (Lower) tributary to North Bay

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K42E-03

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.002 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at intersection of creek and canal upstream of monitoring station.

RIVER MILE: 0.46

LATITUDE: 36.71850 **LONGITUDE:** -75.96730

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth, confluence with North Bay.

RIVER MILE: 0.00

LATITUDE: 36.71390 **LONGITUDE:** -75.96739

Segment begins at intersection of creek and canal upstream of monitoring station and ends at mouth, confluence with North Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform & Enterococci

Sufficient exceedances of the Fecal Coliform & Enterococci bacteria standard at monitoring station 5BHPC000.00 to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the Fecal Coliform bacteria standard violation is the presence of enteric bacteria.

IMPAIRMENT SOURCE: Unknown

The monitoring station (5BHPC000.00) is located at the mouth of the creek where it empties into North Bay. The land use in the watershed is mixed agricultural and livestock production. Nearby farm fields are spray irrigated using effluent from animal rearing facilities. The watershed potentially receives inputs from residential sewage treatment systems, wetlands areas, and storm water runoff associated with the surrounding residential /agricultural area.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Virginia Beach

STREAM NAME: Muddy Creek tributary to North Bay

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K42E-04

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.01 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins at confluence with Ashville Bridge Creek

RIVER MILE: 1.14

LATITUDE: 36.71446 **LONGITUDE:** -75.98720

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth, confluence with North Bay.

RIVER MILE: 0.00

LATITUDE: 36.71197 **LONGITUDE:** -75.97274

Segment begins at confluence with Ashville Bridge Creek and ends at the mouth, the confluence with North Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient exceedances of the Fecal Coliform bacteria standard at monitoring station 5BMDY000.00 to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the Fecal Coliform bacteria standard violation is the presence of enteric bacteria.

IMPAIRMENT SOURCE: Unknown

The monitoring station (5BMDY000.00) is located at the mouth of the creek where it empties into North Bay. The land use in the watershed is mixed agricultural and livestock production. Nearby farm fields are spray irrigated using effluent from animal rearing facilities. The watershed potentially receives inputs from residential sewage treatment systems, wetlands areas, and storm water runoff associated with the surrounding residential /agricultural area.

Fact Sheets for Category 5 Waters

RIVER BASIN: Chowan River and Dismal Swamp Basins

CITY/COUNTY: Virginia Beach

STREAM NAME: Beggars Bridge Creek tributary to Shipps Bay

HYDROLOGIC UNIT: 03010205

TMDL ID: VAT-K42E-05

ASSESSMENT CATEGORY: 5A

SEGMENT SIZE: 0.02 - Sq. Mi.

INITIAL LISTING: 2004 **TMDL SCHEDULE:** 2016

UPSTREAM LIMIT:

DESCRIPTION: Segment begins 0.6 miles upstream from monitoring station (5BBBC000.76), at confluence of numerous

RIVER MILE: 1.17

LATITUDE: 36.68339 **LONGITUDE:** -75.99326

DOWNSTREAM LIMIT:

DESCRIPTION: Segment ends at mouth, confluence with Shipps Bay

RIVER MILE: 0.00

LATITUDE: 36.67641 **LONGITUDE:** -75.97578

Segment begins at the confluence of numerous unnamed tributaries (RM 1.34) near Dawley Corners and extends downstream to the mouth at the confluence with Shipps Bay.

CLEAN WATER ACT GOAL AND USE SUPPORT:

Recreation Use - Not Supporting

IMPAIRMENT CAUSE: Fecal Coliform

Sufficient exceedances of the Fecal Coliform bacteria standard at monitoring station 5BBBC000.76 to assess this segment as not supporting of the Clean Water Act's Recreation Use Support Goal for the 2004 305(b) report. The cause of the Fecal Coliform bacteria standard violation is the presence of enteric bacteria.

IMPAIRMENT SOURCE: Unknown

The monitoring station (5BBBC000.76) is located at the Muddy Creek Road crossing of Beggars Bridge Creek. The land use in the watershed is mixed agricultural and livestock production. Nearby farm fields are spray irrigated using effluent from animal rearing facilities. The watershed potentially receives inputs from residential sewage treatment systems, wetlands areas, and storm water runoff associated with the surrounding residential /agricultural area. The source of the Fecal Coliform bacteria standard exceedance is unknown.